

What is claimed is:

1. A shape memory polymer composition comprising an isocyanate which is bifunctional or trifunctional or a mixture of bifunctional and trifunctional isocyanates, and  
5 a polyol having an average molecular weight of from 100 to 550, with a molar ratio in terms of functional groups of isocyanate : polyol = 0.9 to 1.1 : 1.0.

2. A shape memory polymer composition according to claim 1, wherein the polyol contains at least 50 wt.% of  
10 polypropylene glycol.

3. A shape memory polymer composition according to claim 1 or 2, wherein the polyol is bifunctional.

4. A fiber reinforced plastic comprising a shape memory polymer composition as claimed in any one of claims  
15 1 to 3 and a fibrous material.

5. A fiber reinforced plastic according to claim 4, which contains 25 to 95 vol.% of the shape memory polymer composition and 5 to 75 vol.% of the fibrous material.

6. A production process of a fiber reinforced  
20 plastic, which comprises:

preparing a shape memory polymer composition having a liquid bifunctional isocyanate and/or a liquid trifunctional isocyanate and a polyol having an average molecular weight of from 100 to 550, with a molar ratio in  
25 terms of functional groups of isocyanate : polyol = 0.9 to

1.1 : 1.0;

impregnating a fibrous material with a matrix resin  
of the composition; and then

curing the impregnated fibrous material.

5        7. A production process of a fiber reinforced  
plastic according to claim 6, wherein the polyol contains  
at least 50 wt.% of polypropylene glycol.

8. A production process of a fiber reinforced  
plastic according to claim 7, wherein the polyol is  
10 bifunctional.

9. A production process of a fiber reinforced  
plastic according to any one of claims 6 to 8, wherein at  
least two layers of the impregnated fibrous material were  
stacked one after another, caused to stick closely each  
15 other, pressurized and cured as a laminate having a  
multilayer structure.